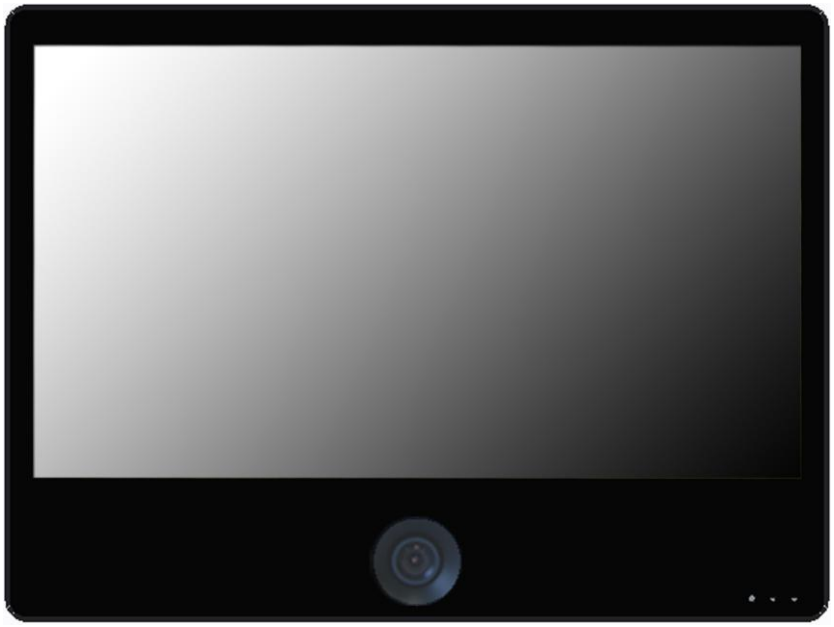
23 & 27 & 32-INCH TFT-LCD
PUBLIC VIEW MONITOR



INSTRUCTION MANUAL

Please read this manual thoroughly before use, and keep it handy for future reference.

CONTENTS

SAFETY INSTRUCTION ..... 2 ~ 3

CAUTIONS 4

FCC RF INTERFERENCE STATEMENT 5

WIRING 6

CONNECTING WITH EXTERNAL EQUIPMENT 7

REMOTE FUNCTIONS 8

CONTROLS AND FUNCTIONS ..... 9 ~ 18

CAMERA CONTROLS AND FUNCTIONS ..... 19 ~ 26

CARD READER CONTROLS AND FUNCTIONS ..... 27 ~ 35

MOUNTING GUIDE 36

D-SUB CONNECTOR PIN ASSIGNMENTS 37

POWER MANAGEMENT 38

SPECIFICATIONS ..... 39 ~ 42

TROUBLE SHOOTING GUIDE 43

This Monitor was
Manufactured by ISO 9001
Certified Factory

Important Safety Instruction

1. Read these instructions.
2. Keep these Instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers,stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug.
   Apolarized plug has two blades with one wider than the other.
   Agrounding type plug has two blades and a third grounding prong.
   The wide blade or the third prong are provided for your safety.
   If the provided plug does not fit into your outlet, consult an electrician for replacement of the bsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
11. Only use attachment/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus the apparatus has been exposed to rain or moisture does not operate normally or has been dropped.

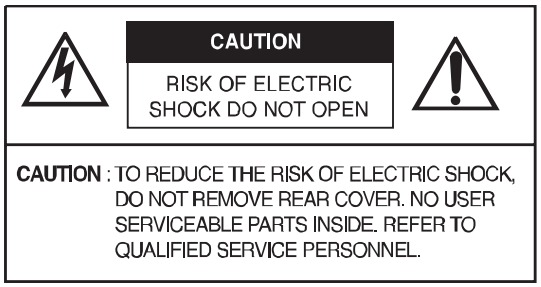
SAFETY INSTRUCTION

- The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed no the apparatus.

14 Minimum distances(e.g. 10cm) around the apparatus for sufficient ventilation.

“WARNING – To reduce the risk of fire or electric shock, do not expose the apparatus to rain or moisture.”

“The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.”


CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE REAR COVER. NO USER SERVICEABLE PARTS INSIDE. REFER TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of uninsulated : dangerous voltage with in the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance(servicing) instructions in the literature accompanying the appliance.

CAUTIONS

CAUTION

The power supply cord is used as the main disconnect device, ensure that the socket-outlet is located/installed near the equipment and is easily accessible.

ATTENTION

Le cordon d`alimentation est utillsé comme interrupteur général. La prise de courant doit être située ou installée à proximité du matériel et être facile d`accès

CAUTION TO SERVICE PERSONNEL

POWER SUPPLY CORD IS USED AS MAIN POWER DISCONNECT DEVICE IN THIS PRODUCT. UNPLUG THIS PRODUCT FROM THE WALL OUTLET BEFORE REMOVING THE BACK COVER AND SERVICING

EMISSION CHARACTERISTICS TESTED BY SEMKO

THIS PRODUCT HAS BEEN TESTED AND HAS SHOWN COMPLIANCE WITH THE NATIONAL SPECIFICATIONS SUCH AS SWEDISH MPR 1990.10.(MPR II)

▶ **NEVER REMOVE THE BACK COVER**

Removal of the back cover should be carried out only by qualified personnel.

▶ **DO NOT USE IN HOSTILE ENVIRONMENTS**

To prevent shock or fire hazard, do not expose the unit to rain or moisture.

This unit is designed to be used in the office or home. Do not subject the unit to vibrations, dust of corrosive gases.

▶ **KEEP IN A WELL VENTILATED PLACE**

Ventilation holes are provided on the cabinet to prevent the temperature from rising.

Do not cover the unit or place anything on the top of unit.

▶ **AVOID HEAT**

Avoid placing the unit in direct sunshine or near a heating appliance.

▶ **TO ELIMINATE EYE FATIGUE**

Do not use the unit against a bright back ground and where sunlight or other light sources will shine directly on the monitor.

▶ **BE CAREFUL OF HEAVY OBJECT**

Neither the monitor itself nor any other heavy object should rest on the power cord.

Damage to a power cord can cause fire or electrical shock.

FCC RF INTERFERENCE STATEMENT

NOTE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio, TV technician for help.
- Only shielded interface cable should be used.

Finally, any changes or modifications to the equipment by the user not expressly approved by the grantee or manufacturer could void the users authority to operate such equipment.

▶ DOC COMPLIANCE NOTICE

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the radio interference regulation of Canadian Department of communications.

WIRING

WIRING (only 24V~ inputs)

1. On the back of the monitor, loosen the thumb screws and lower the access panel.
2. Attach the leads from the power supply (not supplied) to the left and right connectors.

WARNING: Do not connect a ground to the center post.

3. When finished, secure the access panel.

   Table A shows the recommended maximum wiring distances (transformer to load), and are calculated with a 10-percent voltage drop.

   (10 percent is generally the maximum allowable voltage drop for AC-powered devices.)

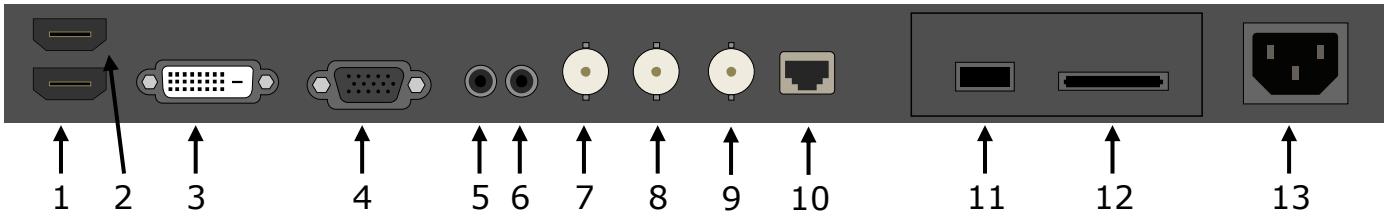
Recommended Wiring Distances

Inch	Wire		
	18AWG	16AWG	14AWG
23”	150 ft (45 m)	240 ft (73 m)	300 ft (91 m)
27”	60 ft (18 m)	120 ft (36 m)	150 ft (45 m)
32”	30 ft (9 m)	30 ft (9m)	90 ft (27 m)

CONNECTING WITH EXTERNAL EQUIPMENT

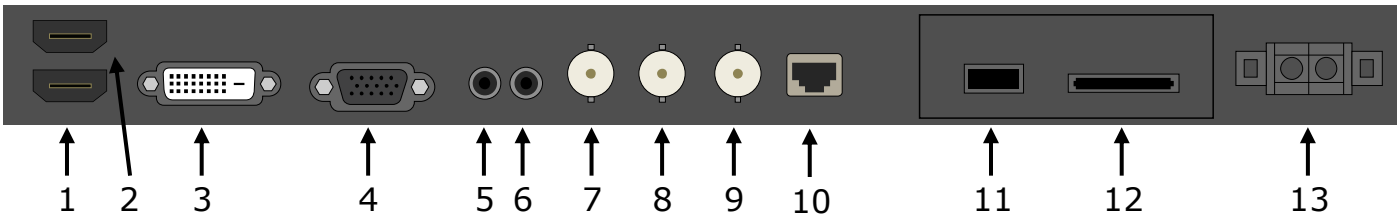
1. TOP PANEL CONTROL

1-1. AC IN Type



1. HDMI1 IN
2. MEDIA PLAYER (HDMI2 IN)
3. DVI
4. VGA (RGB PC)
5. PC STEREO IN
6. AUDIO OUT
7. CAMERA OUT
8. AV2 (VIDEO2) IN
9. AV2 (VIDEO2) OUT
10. IP CAMERA ETHERNET
11. USB 2.0 (Optional)
12. SD CARD READER (Optional)
13. AC IN

1-2. AC 24V IN Type



1. HDMI1 IN
2. MEDIA PLAYER (HDMI2 IN)
3. DVI
4. VGA (RGB PC)
5. PC STEREO IN
6. AUDIO OUT
7. CAMERA OUT
8. AV2 (VIDEO2) IN
9. AV2 (VIDEO2) OUT
10. IP CAMERA ETHERNET
11. USB 2.0 (Optional)
12. SD CARD READER (Optional)
13. AC 24V IN

REMOTE FUNCTIONS

REMOTE CONTROLLER (Optional)

1. POWER( )
Turns the power ON or OFF. There will be a few seconds delay before the display appears.
2. SOURCE
Selects pc or video(Camera, AV) sources.
3. AUTO
Auto geometry adjustment in PC Source.
4. HOLD
Stops the Motion Detection & Auto switching functions.
5. MUTE
Not operating.
6. MENU
Activates and exits the On Screen Display.
7. EXIT
Exits the On Screen Display.
8. VOL(◀ & ▶)
Accepts your selection.
9. UP/DOWN
Moves to OSD menu.
10. ENTER
Accepts your selection or displays the current mode.
11. INFO
Input mode information Display.
12. STILL
Not operating.
13. PIP (Picture In Picture)
Not operating.
14. P.INPUT
Not operating.
15. P.POS
Not operating.
16. P.SIZE
Not operating.
17. SWAP
Not operating.
18. ARC (Aspect Ratio Control)
Selects screen ratio.
19. APC (Auto Picture Control)
Selects picture mode.
20. ACC (Auto Color Control)
Selects Color mode.
21. S.SET
Not operating.
22. PC
Selects PC mode(PC,DVI)
23. AV
Selects AV mode.(Camera, AV)
24. COMP
Not operating.

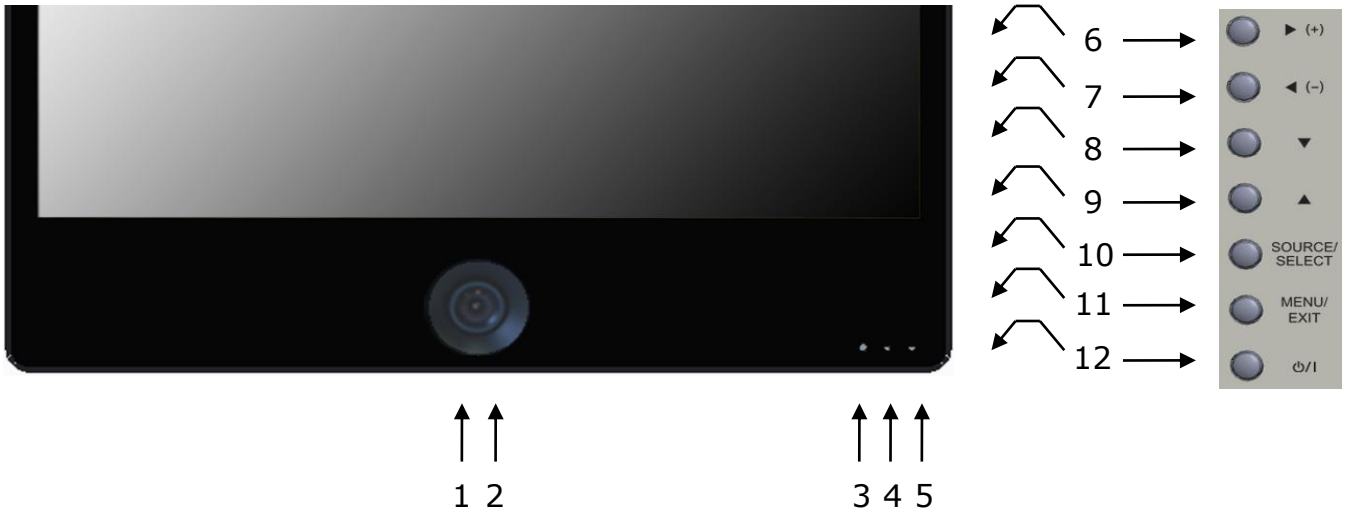
Card Reader Control Key

Card Reader Control Key

25. SETUP
It doesn't have any functions.
26. M/P on/off
Turns the M/P(Media Player) on or off.
27. SEL
Accepts your selection in the menu of M/P (Media Player).
28. ESC
Escapes the menu of M/P (Media Player).
29. ◀ &▲& ▶& ▼
Moves the cursor in the menu of M/P (Media Player).

CONTROLS AND FUNCTIONS

FRONT & BACK KEY CONTROL



1. MOTION DETECTION

Built-in camera sensor for the Motion detection function.

2. BUILT-IN CAMERA

Image of this camera is shown by HDMI.

3. IR Sensor

Remote controller sensor.

4. POWER LED

The power LED lights with green when the power is turned ON.

The power is turned off by pressing the power switch again and the power LED goes to off.

5. RECORDING INDICATOR LED

This LED indicates the recording status by blinking the LED light.

User can choose the LED colors among these. (Red, Blue, Purple)

6 & 7. ▶(+) & ◀(-)

Adjust the volume and menu settings.

8 & 9. ▼ & ▲

These buttons allow user to enter the sub-menu of the activated function.

The up(▲) button is HOLD function and stop the Motion Detection & Auto switching functions.

10. SOURCE/SELECT

Selects an input source.

Enters a submenu or accepts your selection in the OSD menu.

11. MENU/EXIT

Activates and exits the On Screen Display.

This button can also be used to move previous menu or status.

12. POWER ON/OFF(⏻/ I)

Turns the power ON or OFF. There will be a few seconds delay before the display appears.

CONTROLS AND FUNCTIONS

OSD MENU DESCRIPTION

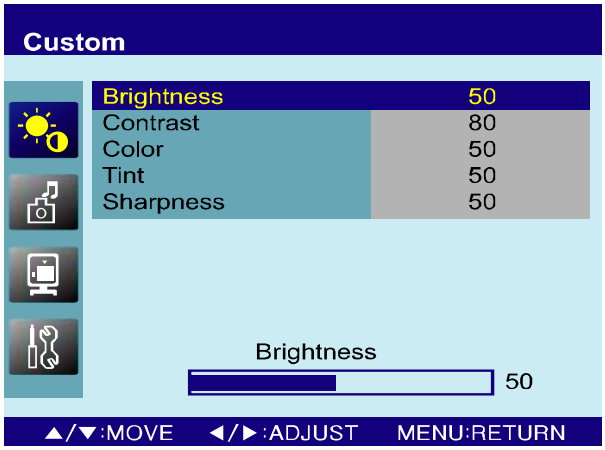
All picture, sound settings and setup for the monitor can be adjusted in the OSD menu.

(**O**n **S**creen **D**isplay)

To adjust the OSD screen:

1. Press the **MENU** button to enter the OSD menu.
2. Press the ▲/▼ buttons to select the desired option. The selected option is highlighted.
3. Press the ▶button to enter the submenu for adjusting items.
4. Change the value you wish to adjust by using the ◀/▶ buttons.
5. Press the ◀button to exit the submenu for adjusting items.
6. Press the **MENU** button to exit the OSD menu.

A. Custom

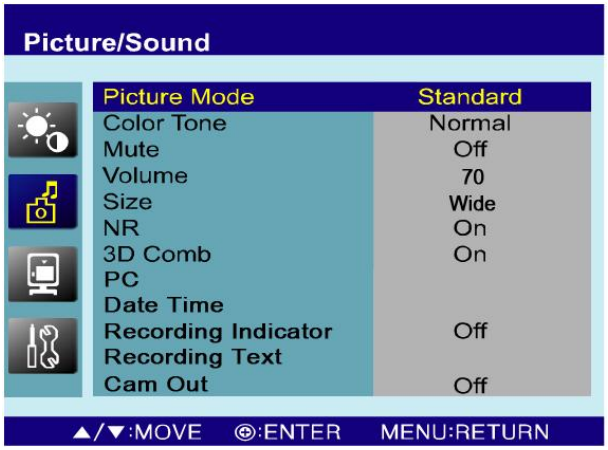


Option	Function	Value
Brightness	Adjusts brightness of the screen.	0 ~ 100
Contrast	Adjusts intensity of the image.	0 ~ 100
Color [1)]	Adjusts color of the picture.	0 ~ 100
Tint [1) 2)]	Adjusts tint of the picture.	0 ~ 100
Sharpness [1)]	Adjusts sharpness of the picture.	0 ~ 100

1) Unavailable in Camera, RGB PC, DVI, HDMI1 and M/P(HDMI2).

2) Unavailable in PAL system.

B. Picture/Sound



Option	Function	Value
Picture Mode	Sets picture mode.	See table below
Color Tone	Sets color tone.	See table below
Mute	Mutes speaker sound.	Off or On
Volume	Adjust the level of audio volume.	0 ~ 100
Size	Display picture size.	See table below
NR [1)]	Reduces noise of the picture.	On or Off
3D Comb [1)]	Activates the 3D comb filter.	On or Off
PC [2)]	See table below.	See table below
Date Time	Sets the date time on the screen.	See table below
Recording Indicator	Sets the light color of recoding LED	Off, Red, Blue, Purple
Recording Text	Sets the recording indication text.	See table below
Cam out	CVBS out is possible to watch Cam out through the CAMERA OUT Port when power off. (Operating is On.)	On or Off (Default is Off.)

1) Unavailable in Camera, RGB PC, DVI, HDMI1 and M/P(HDMI2).

2) Only available in RGB PC.

Picture Mode

Custom	Applies user selected values.(Brightness, Contrast, Color, Tint and Sharpness)
Dynamic	Provides enhanced contrast and sharpness.
Standard	Provides standard contrast and sharpness.
Movie	Is recommended for viewing film-based content.
Mild	Reduces contras and sharpness.

Color Tone

Cool	Gives the white color a bluish tint.
Normal	Gives the white color a neutral tint.
Warm	Gives the white color a reddish tint.
User	To manually adjust the color tones(Red, Green, and Blue).

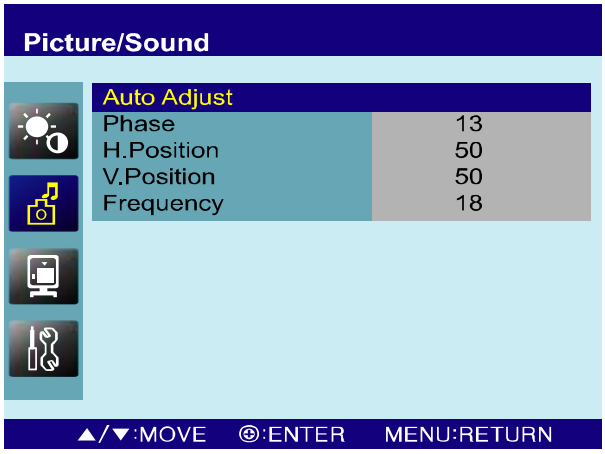
Size

4:3	Sets the image size to 4:3
Panorama [1)]	Sets the image to panorama
Zoom1 [1)]	Expands the image size about two times to upward and downward
Zoom2 [1)]	Expands the image size about one and half times to upward and downward
Wide	Sets the image size to wide
Under [2)]	Adjusts the image size to display resolution without overscan
1:1 [1)]	Adjusts the image size to input resolution with overscan

1) Unavailable in Camera, RGB PC, DVI, HDMI1 and M/P(HDMI2).

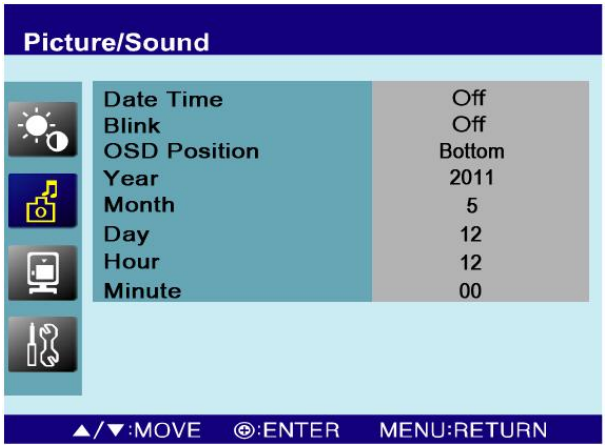
2) Unavailable in RGB PC.

PC



Option	Function	Value
Auto Adjust	Auto geometry adjustment.	
Phase	Adjusts the number of horizontal picture elements.	0 ~ 100
H-Position	Adjusts the horizontally picture position.	0 ~ 100
V-Position	Adjusts the vertically picture position.	0 ~ 100
Frequency	Adjusts the vertical noise of screen image.	0 ~ 100

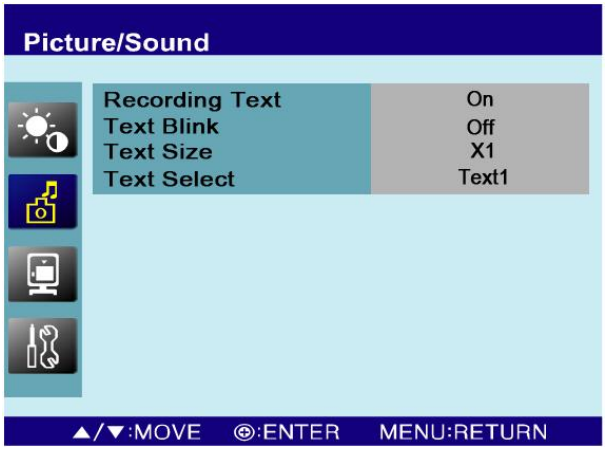
Date Time



Option	Function	Value
Date Time	Activates the feature of Date Time.	Off or On
Blink	This function is for blinking Date & Time texts.	Off or On
OSD Position	Selects the location of Date Time text.	Top, Bottom
Year*	Selects the wanted year.	2000~2100
Month*	Selects the wanted month.	1~12
Day*	Selects the wanted day.	1~31
Hour*	Selects the wanted hour.	0~23
Minute*	Selects the wanted minute.	0~59

* User can set the wanted time (Year, Month, Day, Hour, Minute) by using VOL(◀/▶) key.

Recording Text

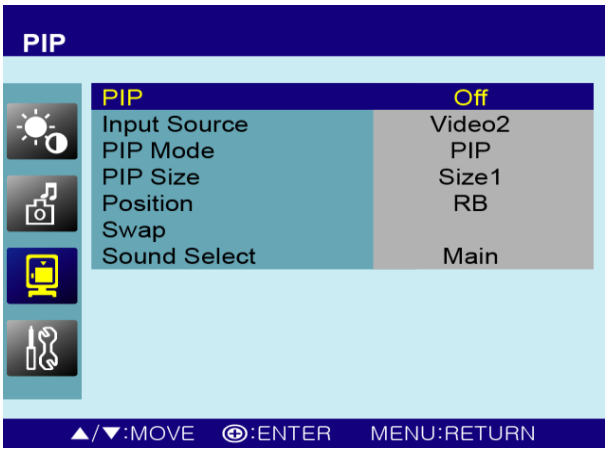


Option	Function	Value
Recording Text	Activates the feature of Recording Text.	Off or On
Text Blink	This function is for blinking Recording text.	Off or On
Text Size	Selects the size of Recording text.	X1, X2, X3
Text Select	Selects the wanted phrases.	Text1, Text2, Text3[1)]

1) Text phrases

- Text1: Recording
- Text2: Recording in Progress
- Text3: Surveillance in Progress

C. PIP

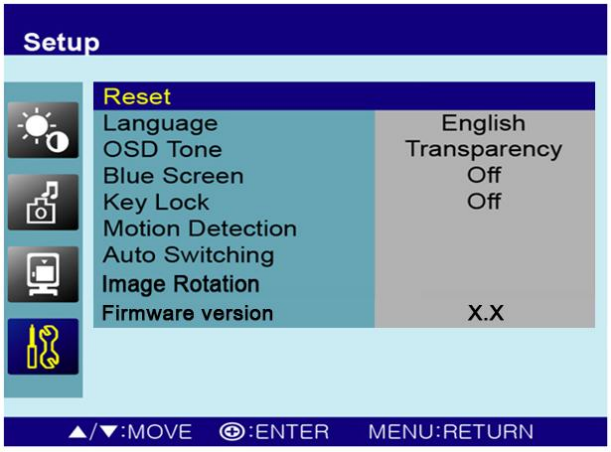


Option	Function	Value
PIP	Activates the PIP feature.	Off or On
Input Source	Selects the input source for the PIP area.	See table below
PIP Mode	Enables 3 screen size.4:3 side by corner, 4:3 side by 4: 3, and full screen side by side.	PIP, PBP1 or PBP2
PIP Size	Selects the size of PIP screen.	Size1, Size2 or Size3
Position	Selects the position of PIP screen. **R**ight of **B**ottom, **L**eft of **B**ottom, **L**eft of **T**op and **R**ight of **T**op.	RB, LB, LT or RT
Swap	Alternates between the main and sub picture	
Sound Select	Selects the sound source from either the Main or PIP	Main or Sub

Input Source

	Main	Sub
Available combination	AV2	AV2
	AV2	Camera, RGB PC, DVI, HDMI1 or M/P(HDMI2)
	Camera, RGB PC, DVI, HDMI1 or M/P(HDMI2)	AV2
Unavailable combination	Camera, RGB PC, DVI, HDMI1 or M/P(HDMI2)	Camera, RGB PC, DVI, HDMI1 or M/P(HDMI2)

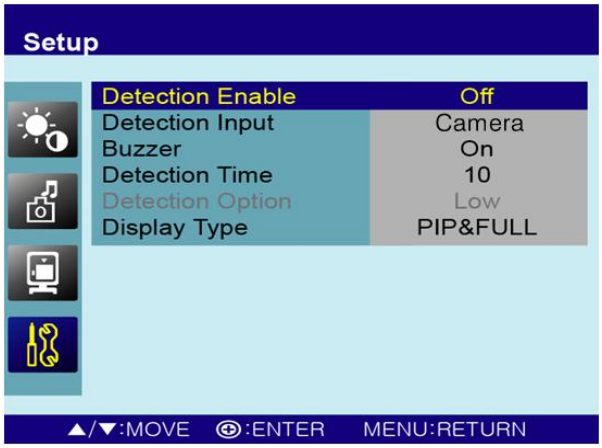
D. Setup



Option	Function	Value
Reset	Resets the monitor settings to their factory default.	
Language	Sets the language of the OSD menu.	English, French, Deutsch, Italian, Spanish, Portuguese or Nederland
OSD Tone	Changes background of monitor menus. (e.g. input source & information)	Transparency or On
Blue Screen	Displays a blue screen if the monitor receives no signal.	Off or On
Key Lock	Locks all buttons of the monitor. **Note**: Use remote controller to unlock.	Off or On
Motion Detection	See table below	
Auto Switching	See table below	
Image Rotation[1)]	Activates the Image Rotation function.	Off or On

1) The displayed image is slightly moved to prevent image persistence when the Image Rotation function is On. The user is able to adjust the image rotation time from 0~10Min. in the sub-menu of image rotation.

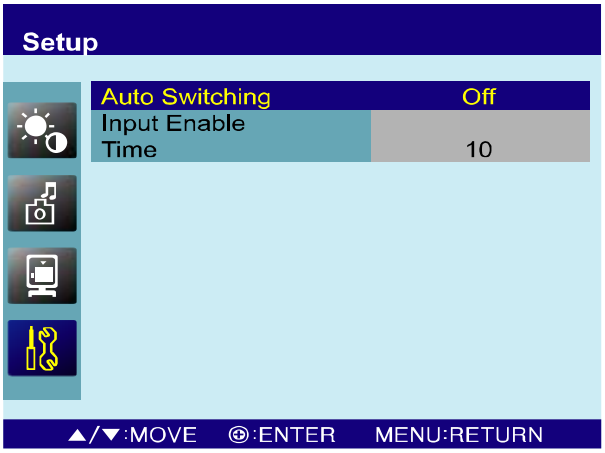
Motion Detection



Option	Function	Value
Detection Enable	Activates the Motion Detection feature.	Off or On
Detection Input	Selects the input source for the Motion Detection.	Camera, AV2, RGB PC, DVI, HDMI1, M/P(HDMI2)
Buzzer	Activates an audible signal when the monitor receives a motion detection signal.	On or Off
Detection Time	Selects the amount of time, in seconds, that the monitor displays the motion detection input image.	3 ~ 100
Detection Option	Not operating.	
Display Type	Selects the mode in which the monitor displays the motion detection input. The monitor takes one of the following actions: - PIP & FULL: Displays the motion detection input in the PIP of the current video input source. **Note**: The main video source must support the motion detection input source as a PIP option. See section "**Input Source**" in "**C. PIP**". - FULL: Switches the display to show the motion detection input in the full screen.	PIP & FULL or FULL

CONTROLS AND FUNCTIONS

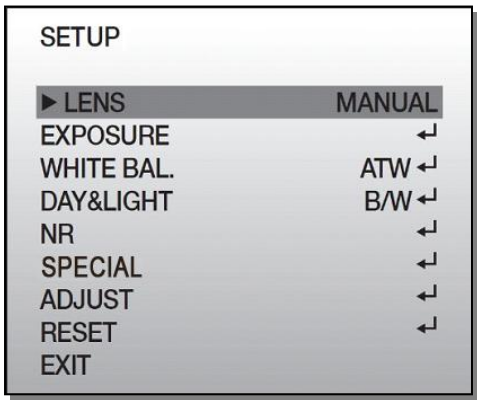
Auto Switching



Option	Function	Value
Auto Switching	Activates the Auto Switching feature.	Off or On
Input Enable	Opens another menu and you can select the input sources to include in the Auto Switching cycle.	Camera, AV2, RGB PC, DVI, HDMI1, M/P(HDMI2)
Time	Selects the amount of time, in seconds, that the monitor displays each selected input source.	3 ~ 100

CAMERA CONTROLS AND FUNCTIONS

Setting up the menu

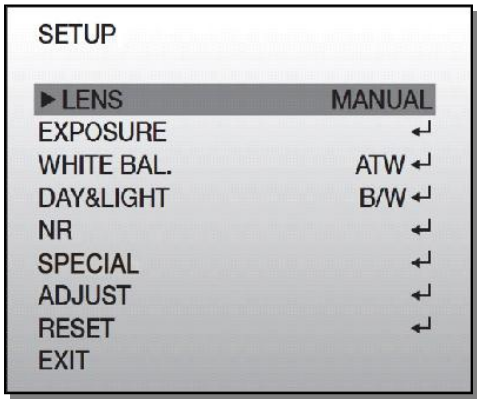


Settings can be made using the OSD Switch located on the back of the camera.

1. Press the button to access the SETUP mode.
   The SETUP menu is displayed on the monitor.
2. Please select any function you wish to activate by using the UP/DOWN selections. The cursor can be moved up or down by using the UP/DOWN selections.
   Position the cursor to point to the function you wish to operate.
   * MAIN-menu: Use UP/ DOWN selections. / SUB-menu: Use LEFT/ RIGHT selection
3. Change the status of the selected feature using the LEFT/RIGHT selections.
   When the LEFT or RIGHT selection is done, available values and modes are displayed in order. Please keep the selection until you get to the mode you wish to operate.
4. When completed, move the cursor indicator to 'EXIT' position and press the Button to finish the setting.

1.SET UP MENU

1-1. LENS



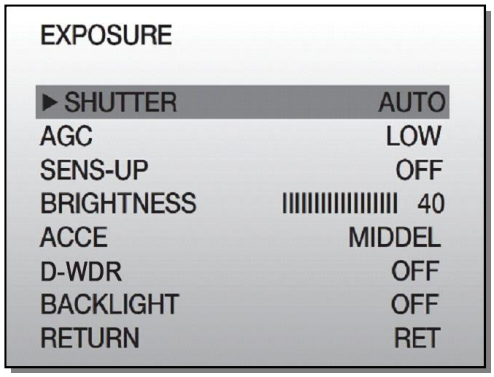
(1) Manual Mode
- The level of brightness of a screen is automatically controlled using the Electronic Shutter, AGC and Sens-up.

(2) DC IRIS Mode
- DC IRIS, AGC, and Sense-Up are used to automatically control the brightness level of a screen.

(3) Video IRIS Mode
- VIDEO IRIS, AGC and Sense-Up are used to automatically control the brightness level of a screen.

CAMERA CONTROLS AND FUNCTIONS

1-2. EXPOSURE



(1) SHUTTER

- Shutter speed control

  (AUTO&FLK level: 1/60~1/100000/X2~X60)

(2) AGC (Auto Gain Control)

The higher the gain level is, the brighter the screen becomes. But the higher gain level causes more noise.

- LOW: Allows automatic gain control from 0 to 20dB.
- MIDDLE: Allows automatic gain control from 0 to 30dB.
- HIGH: Allows automatic gain control from 0 to 42dB.
- OFF

(3) SENS-UP

- The Sens-up function allows the camera can display the bright image even extreme darkness.

  Important Tips: IR Distance can be extended twice longer when <Sens-up> is set x2 ~ x6.

  Caution: When Sens-up is adjusted for more than 8 times (x8), the picture becomes brighter but the frame rate relatively gets slower resulting and the picture becomes slow motioned.

(4) BRIGHTNESS

- Adjusts the brightness in 5~100

(5) D-WDR

- D-WDR (Digital-Wide Dynamic Range) block performs an image enhancement processing to enhance visibility of an image by changing the brightness values to the level that people can recognize the change.

AGC OFF

AGC ON

D-WDR OFF

D-WDR ON

SENS-UP X2

SENS-UP X30

(6) DEFOG

- Images in extraordinary environment such as fog or rain or in a very strong luminous intensity have DR (dynamic range), lower than ordinary images.

DEFOG OFF | DEFOG ON

(7) BACKLIGHT

- BLC controls the brightness level of the screen in order to be able to distinguish objects against backlight.
- HSBLC

It cuts off the strong lighting like the “headlight”. According to user’s adjustment, zones & sensitivity can be adjustable. In case of the car surveillance, it remarkably performs recognizing license plate or

subject HLC is a function to mask bright areas in order to prevent the target object from looking dark due to the backlighting.

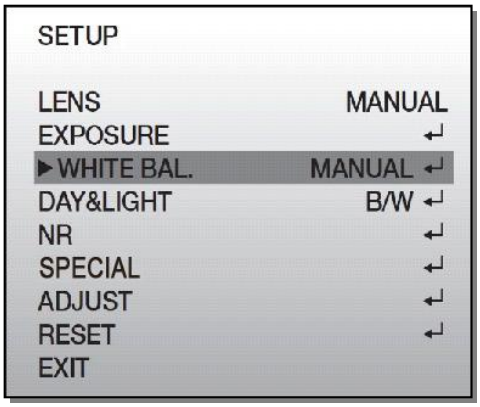
BLC OFF | BLC ON

HSBLC OFF | HSBLC ON

1-3. WHITE BAL

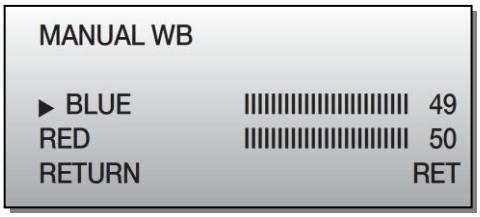
(1) MANUAL

- In the manual mode, the user can choose the color and temperature. The user can adjust the color and temperature by controlling red and blue gain.



(2) AWC→SET

- This is used in order not to change the color and temperature values set for a certain environment. Press for two to three seconds the “Set Button” on the OSD MENU in order to have the color and temperature values fixed. When the value of OPD Block is included in ATW Area, color and temperature are fixed for that relevant value only. If there is no such value included, the color and temperature are fixed for the entire image.



(3) ATW

- Auto tracking white balance. In certain light conditions the colors are adjusted automatically.

(4) INDOOR: Use this mode when color temp. is between 4,500k~8,500k.

(5) OUTDOOR: Use this mode when color temp. is between 1,800k~10,500k (Sodium light included).

WHITE BAL OFF

WHITE BAL ON

CAMERA CONTROLS AND FUNCTIONS

1-4. DAY & NIGHT

You can display pictures in BW/AUTO/COLOR

(1) B/W Mode

- B/W Mode is used to maintain B/W mode all the time.
- BURST
- IR SMART
- IR LED
- IR PWM LEVEL 0~100

(2) Auto Mode

- Automatically turns between Day and Night Mode according to AGC operation.

(3) Color Mode

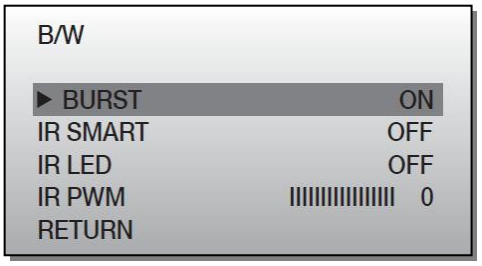
- COLOR Mode is used to maintain color mode all the time.

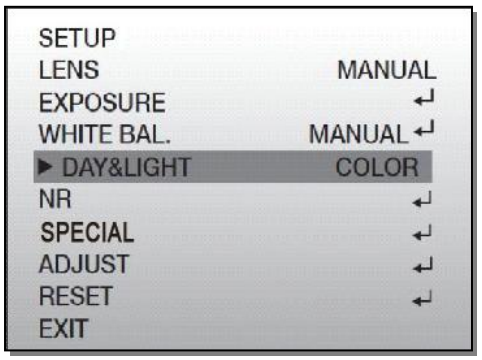
DYA&NIGHY OFF

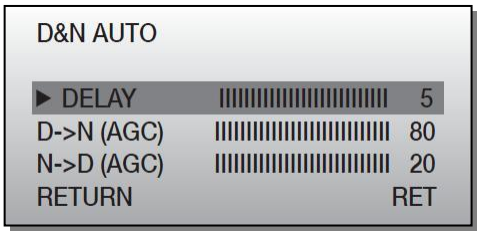
DYA&NIGHY ON

SMART IR OFF

SMART IR ON







1-5. NR

(NR) Noise Reduction is used in order to obtain a high quality output image and enhance compression efficiency.
We offers Edge Preserving 2DNR and Motion Adaptive 3DNR.
3DNR level reduces more low light noise but it can cause ghost effect as well.

(1) 2DNR

(2) 3DNR ON

S-LEVEL 0~100

E-LEVEL 0~100

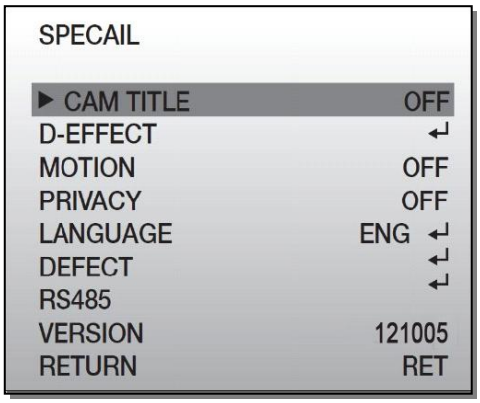
(3) LEVEL 0~100

(4) SMART NR

NR OFF

NR ON

1-6. SPECIAL



(1) CAM TITLE

- To display a title on the monitor

(2) D-EFFECT

- FREEZE: To hold a stop picture.
- MIRROR (OFF-V-FLIP-ROTATE): Reverse the picture vertically or horizontally.
- D-ZOOM

Zoom can be from x2 to x64 and in the case of PIP, it can be from 1/9 to 1/16.

PIP ON-OFF

D-ZOOM X2~X62

PAN TILT

DEFAULT

- NEG.IMAGE: Change colors off like film.

CAMERA CONTROLS AND FUNCTIONS

D-ZOOM OFF

D-ZOOM ON

(3) MOTION

- The feature allows you to integrate your cameras with external devices - to engage that device upon the detection of motion. Common devices include security lights, alarms, access control devices, and more.

(4) PRIVACY

- Privacy masking allows masking a certain spot on the screen. We offer a total of 8 Privacy Masking Windows. Priority is allocated to each window so when multiple number of windows is overlapped, window (Window 7 is given the highest priority) at a higher level is given priority. For each window, color, boundary (yes/no), image inversion (yes/no), black & white (yes/no) and transparent level can be adjusted. Those areas privacy masked are excluded from the areas for motion detection.

PRIVACY ON

PRIVACY ON

PRIVACY ON

(5) LANGUAGE

- ENG

(6) DEFECT

- LIVE DPC ON/OFF
- LEVEL 0~60
- START DPC ON/OFF
- START CLOSE LENS THE PRESS ENTER KEY
- LEVEL 0~60
- SENS-UP X2~X30

(7) RS485

- Check your camera can support this feature. Set proper BAUD RATE to communicate with other devices.
- CAM ID 0~255
- ID DISPLAY ON/OFF
- BAUD RATE 2400~38400

(8) VERSION

CAMERA CONTROLS AND FUNCTIONS

1-7. ADJUST

- SHARPNESS

  ON/OFF / LEVEL 0~100 / RESOLUTION ON/OFF

- MONITOR

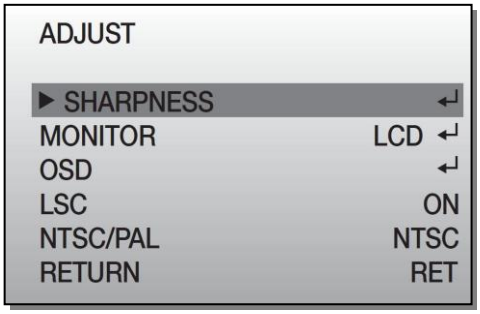
LCD	GAMMA 0.45~USER
	BLUE GAMMA 0~100
	RED GAMMA 0~00
CRT	BLACK LEVEL-30~+30
	BLUE GAIN 0~100
	RED GAIN 0~100

- OSD

  TEXT COLOR 1~8

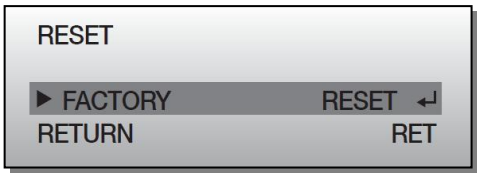
  OUT LINE ON/OFF

- LSC
- NTSC/PAL

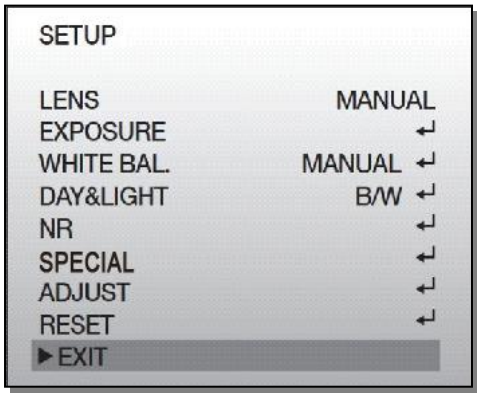


1-8. RESET

- FACTORY
- Resets the camera setting to the factory defaults.
- RETURN



1-9.EXIT



2. IP PVMZ Installation and Basic Setup

2.1. Before Installation

- Read carefully User's Manual.
- Check User's Network (IP Address, Network Mask and default gateway)
- Secure IP address for IP PVMZ.

2.2. Factory Default Settings

The following table shows the factory default condition.

Please refer to this when you need to change the values on admin menu.

	Factory Default
Admin ID	root
Admin password	root
IP address	10.20.30.40
Network mask	255.255.255.0
Gateway	10.20.30.1

Note : Factory default Admin ID and Password are all lower case letters. You can change the password with Capital letters.

2.3. Installing IP PVMZ

Following steps are the physical installation process for IP PVMZ.

2.3.1 Fix the IP PVMZ in place

2.3.2 Connect the IP PVMZ to the Internet cable through the LAN port.

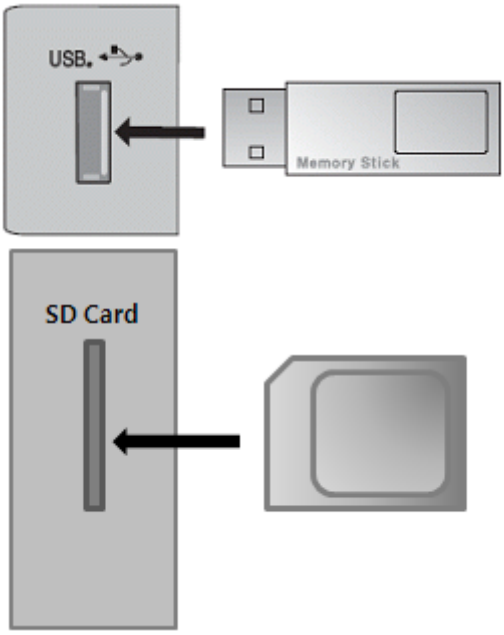
2.3.3 Connect the power supply of IP PVMZ.

After that, you need to follow the steps below.

- Network Configuration: Refer to "IP Installer User's Manual"
  Refer to "IP Camera Admin User's Manual"
  Refer to "Smart Viewer User's Manual"

CARD READER CONTROLS AND FUNCTIONS (Optional)

Menu of the M/P (Media Player)



• Connect USB & SD card devices

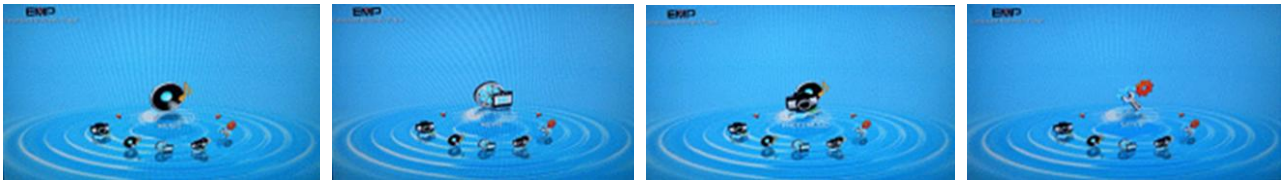
1. Connect USB & SD card devices to USB slot which are on the slide of the monitor set.

• Removing the USB & SD card devices from Monitor

1. Return to main menu and press ESC.

2. Remove the USB & SD card devices from Monitor.

- Entering Card Reader, displaying main menu.



[MUSIC] [MOVIE] [MUSIC PHOTO] [SETUP]

Option	Function
PHOTO	Displaying photo and slideshow.
MUSIC	Playing music in the USB device.
MOVIE	Playing movie in the USB device
MUSIC PHOTO	Displaying photo and slideshow with playing music.
SETUP	Select subtitle language and photo slideshow effect, time.

CARD READER CONTROLS AND FUNCTIONS (Optional)

A. PHOTO

JPEG File Viewing Options

- When you select Photo in entry menu,

1. Press the USB button and then use ◀/▶ button to select the Photo.
2. Press the **SEL** button.
3. Press the ▲/▼ button to select photo file.
4. Press the **SEL** button for 1 picture display for slideshow.
5. Press exit or press the **ESC** button to return to the USB menu.

Slideshow

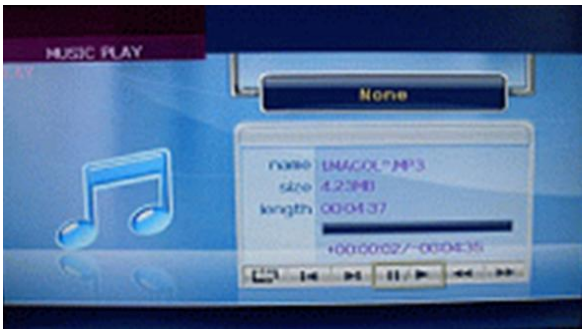
1. Press ◀/▶ button to select the Photo.
2. You can choose the slide show effect, frequency and play mode in the USB Setup.
3. Press the **SEL** button to pause the current image.
5. Press exit or press the **ESC** button to return to the USB menu.

Using the remote control

SEL	Starting photo slideshow displaying
PLAY/PAUSE	PLAY/PAUSE functions use **SEL** button in slideshow displaying
ESC	Stop slideshow and return to photo file list menu

CARD READER CONTROLS AND FUNCTIONS (Optional)

B. MUSIC



- Purchased MP3/music files may contain copyright restrictions.

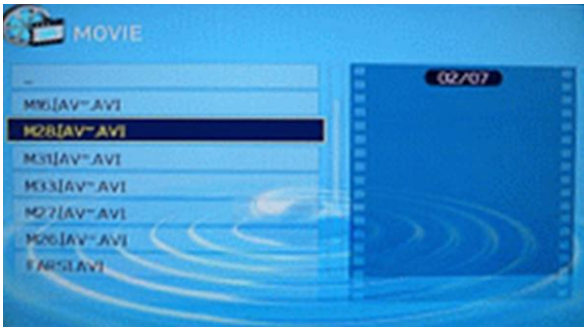
1. Press ◀/▶ button to select the Music.
2. Press the **SEL** button.
3. Press the ▲/▼ button to select desired music file.
4. Press the **SEL** button. Then the music starts.
5. Press exit or press the **ESC** button to return to the USB menu.

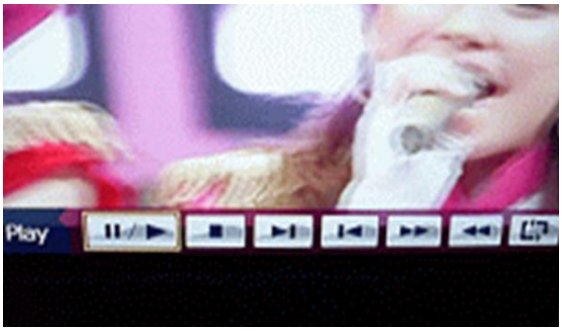
Using the remote control

SEL	Selected music playing
PLAY/PAUSE	PLAY/PAUSE functions use **SEL** button
ESC	Stop playing music and return the music file list

CARD READER CONTROLS AND FUNCTIONS (Optional)

C. MOVIE





- Select the Movie

1. Press ◀/▶ button to select the Movie
2. Press the **SEL** button.
3. Press the ▲/▼ button to select desired movie file.
4. Press the **SEL** button. Then the movie starts.
5. Press exit or press the **ESC** button to return to the USB menu.

Using the remote control

SEL	Playing selected movie file
PLAY/PAUSE	PLAY/PAUSE functions use **SEL** button
ESC	Stop playing movie and return to movie file list

CARD READER CONTROLS AND FUNCTIONS (Optional)

D. PHOTO MUSIC

-Playing slideshow with music.

1. Press the USB button and then use ◀/▶ button to select the **PHOTO MUSIC**.
2. Press the **SEL** button.
3. Press the ▲/▼ button to select photo file.
4. Press the **SEL** button for picture display for slideshow.
5. Moved to music file list for music playing.
6. Press the **SEL** button for playing music with photo slide show.
7. Press exit or press the **ESC** button to return to the USB menu.

Using the remote control

OK	Select photo and music file
PLAY/PAUSE	PLAY/PAUSE functions use **SEL** button in Music playing
ESC	Stop playing slideshow with music and return to movie file list

CARD READER CONTROLS AND FUNCTIONS (Optional)

E. PHOTO Thumbnail mode

- Thumbnail mode in photo.

- Press ▶ button in Photo File list or ACT button in main menu

1. Press ▲/▼/◀/▶ button to select desired photo file.
2. Press **SEL** button to start Slideshow
3. Press exit or press the ESC button to return to the USB menu.

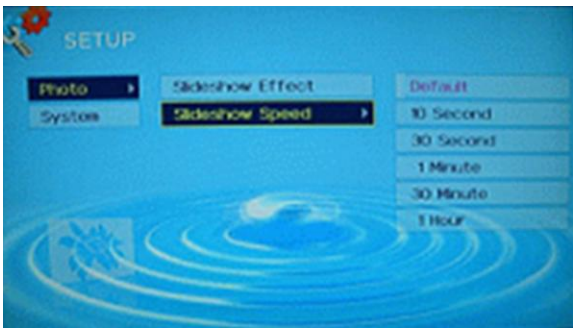
Using the remote control

SEL	Select desired photo file for slideshow playing
PLAY/PAUSE	PLAY/PAUSE functions use **SEL** button in photo playing
ESC	Stop Thumbnail mode and return to file list

CARD READER CONTROLS AND FUNCTIONS (Optional)

F. SETUP

1. SETUP- PHOTO



Select Slideshow Effect

-The picture display effect for the slide show.

1. Press ◀/▶ button to select the Setup.
2. Press the **SEL** button enter the Setup menu.
3. Press the ▶ and then use ▲/▼ button to select **Slideshow EFFECT**.
4. Press the ▶ and then use ▲/▼ button to select the desired Effect.
5. Press exit or press the **ESC** button to return to the USB menu.

Select Slideshow Speed

-The picture display interval for the slide show.

1. Press ◀/▶ button to select the Setup.
2. Press the **SEL** button to enter the Setup menu.
3. Press the ▲/▼ button to select the PHOTO SETUP.
4. Press the ▶ and then use ▲/▼ button to select..
5. Press the ▶ and then use ▲/▼ button to select the Speed.
6. Press exit or press the **ESC** button to return to the USB menu.

2. SETUP-SYSTEM

Select SUBTITLE LANG.

- The menus can be shown on the screen in the selected language.

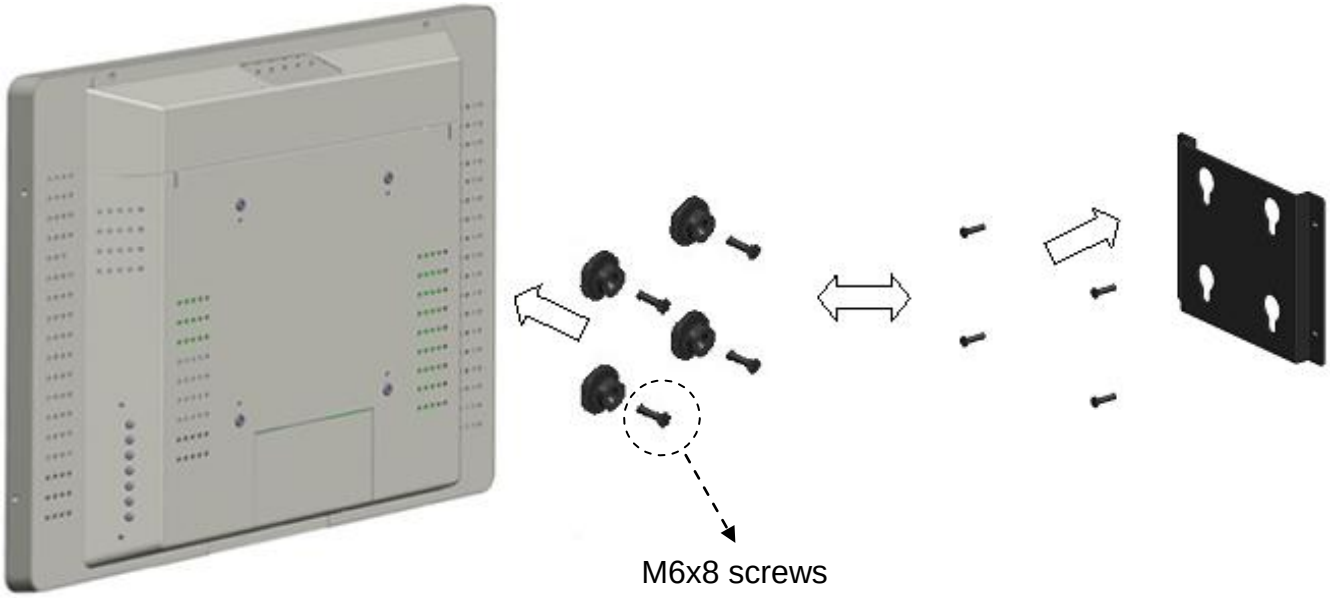
First select your language.

1. Press ◀/▶ button to select the Setup.
2. Press the **SEL** button to enter the Setup menu.
3. Press the ▲/▼ button to select the SYSTEM SETUP.
4. Press the ▶ and then use ▲/▼ button to select **SUBTITLE LANGUAGE.**
5. Press the ▶ and then use ▲/▼button to select the desired language.
6. Press exit or press the **ESC** button to return to the USB menu.

MOUNTING GUIDE

Wall mounting (Optional)

The LCD monitor is suitable for wall mounting by using the VESA 200 standard wall mount (not included in the delivery).



※ Attention!

You must use four M6x8 screws to assemble this monitor and the wall mount bracket.

※ WARNING!

If user use longer than M6x8mm, it may cause the damage on the unit.

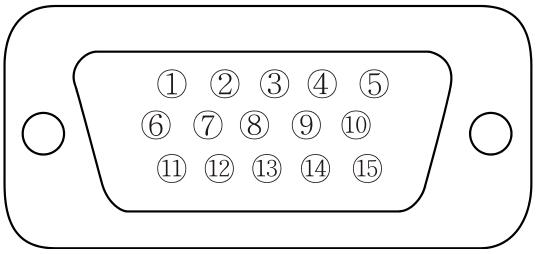
Please follow instructed bolt size & length.

D-SUB CONNECTOR PIN ASSIGNMENTS

▶ PIN ASSIGNMENTS

Pin 1	RED VIDEO	9	N.A
2	GREEN VIDEO	10	SIGNAL CABLE DETECT
3	BLUE VIDEO	11	GROUND
4	GROUND	12	SDA(for DDC)
5	GROUND	13	H-SYNC.(or H+V SYNC.)
6	RED GROUND	14	V-SYNC.
7	GREEN GROUND	15	SCL(for DDC)
8	BLUE GROUND		

D-SUB



▶ ACCESSORIES

1. Power cord. (AC 110V only.)
2. User's manual.
3. PC cable.
4. Stereo cable. (Optional)
5. Remote controller. (Optional)
6. Batteries. (Optional)
7. Wall mount. (Optional)

POWER MANAGEMENT

POWER CONSUMPTION

MODE	POWER CONSUMPTION		
	23”	**27”**	**32”**
ON	<50W	< 55W	< 66W
POWER OFF	< 3W		

LED INDICATOR

The power management feature of the monitor is comprised of two stages: ON(GREEN) and POWER OFF(RED).

MODE	LED COLOR	MONITOR OPERATION
ON	GREEN	Normal Operation
POWER OFF	RED	Not Operation

SPECIFICATIONS

1. Monitor Specification

		23”	27”	32”
LCD-Type	TYPE	23″ Diagonal AM-TFT (Active-Matrix)	27″ Diagonal AM-TFT (Active-Matrix)	32″ Diagonal AM-TFT (Active-Matrix)
	PIXEL PITCH(mm)	0.2655(H) x 0.2655(V)	0.3112(H) x 0.3112(V)	0.36375(H) x 0.36375(V)
	BRIGHTNESS	250cd/m² (Typical)	300cd/m² (Typical)	350cd/m² (Typical)
	CONTRAST RATIO	1000:1 (Typical)	5000:1 (Typical)	3000:1 (Typical)
	VIEWING ANGLE	160°/160° (H/V)	178°/178° (H/V)	
	RESPONSE TIME	5msec (G-to-G & Typical)	12msec (G-to-G & Typical)	6.5msec (G-to-G & Typical)
RESOLUTION (H x V)		1920x1080 @60Hz		
FREQUENCY		HORIZONTAL: 31~80KHz, VERTICAL: 56~75Hz		
INPUT SIGNAL		VIDEO (1ch input 1.0Vp-p, 75Ω terminated, loop-through out)		
		DVI (Digital Video Interface)		
		HDMI1, HDMI2 (High Definition Multimedia Interface)		
		PC RGB		
		AV(composite) Sound in/Out		
		PC Stereo Sound		
		Audio Out		
		Card Reader (Optional)		
		IP Camera Ethernet (RJ45)		
ACTIVE DISPLAY AREA (H x V)		509.76mm X 2686.74mm	597.6mm X 336.15mm	698.4mm X 392.85mm
PACKING DIMENSIONS (W x H x D)		680mm X 525mm X 172mm (26.77” X 20.67” X 6.77”)		789mm x 580mm x 220mm (31.06” x 22.83” x 8.66”)
WEIGHT	Net	9.83 kg (21.67 lbs)	11.3 kg (24.91 lbs)	16.7 kg (36.82 lbs)
	Gross	13.5 kg (29.76 lbs)	15.4 kg (33.95 lbs)	21 kg (46.3 lbs)
ELECTRICAL RATINGS	AC IN	100-240V~, 50/60Hz (Auto Switching)		
	AC 24V IN	AC 24V (60Hz)		

▶▶ **NOTE:** Technical specifications are subject to change without notice.

SPECIFICATIONS

2. Camera Specification

CAMERA	
Image Sensor	PANASONIC 1 /3 inch 2.1Mega CMOS Sensor (16:9 Full HD Sensor)
Effective Pixels	1920(H) x 1080(V) 2.1 Mega pixel
Scanning System	Progressive Scan
Lens	2.8~12mm Varifocal DC IRIS control Lens
Min. Illumination	0.5 Lux (F1.2) / 0.0 Lux (IR-LED ON)
Signal System	NTSC / PAL
Electronic Shutter	NTSC:1/30~1/100,000, PAL:1/25~1/100,000
S/N Ratio	More than 50dB
Shutter	Auto / Manual / FLK
AGC	OFF / Low / Middle / High
D-WDR	OFF / ON(LOW / MIDDEL / HIGH)
White Balance	ATW / ATW->SET / Indoor / Outdoor
Backlight	OFF / BLC / HLC
Day & Night Selection	AUTO / COLOR / BW / EXT. D&N
IR SMART	OFF / ON (IR GAIN Level Adjustable 0~ 255)
LENS Shadow	OFF / ON Selectable(Level Adjustable 0~255)
2D/3D-DNR	OFF / ON
CVBS Output	1V p-p Composite. 75 Ohms

SPECIFICATIONS

NETWORK	
Video compression	MJPEG / H.264 AVC (MPEG4 part 10)
Resolution	Max Full HD resolution (1080p)-1920X1080 , 1280X720, 640X352, 320X176
Compression level	6 levels (low compression/highest/high/normal/low/lowest)
Live casting	Up to 30fps @ 1920 x 1080 resolution
Transmission Control	VBR, CBR (32K ~ 12M bps)
UART support	Console Mode, TTL level signal, internal connector
Security	Password protection for live, playback, other controls
Browser	IE 6.0 or higher for control & live view
	Safari, Firefox, Chrome for live-view only (at JPEG mode)
CMS	Support 16 channels, Full featured PC NVR (Minimum PC requirement : Windows XP, 2000, Pentium IV 1.6GHz CPU or higher, 256Mbytes RAM or above, 64Mbytes video memory or above)
Protocol	ONVIF, PSIA, HTTP, TCP/UDP/IP, ARP, ICMP, RTP/RTSP, multicast, Telnet, ftp, PPPoE, SMTP(e-mail), DHCP, NTP, uPnP, SNMP etc.
Installation & maintenance	Configuration: installation wizard, HTTP, telnet and console, Upgrade firmware: HTTP, telnet + ftp
Miscellaneous	Transmit serial input data with video, Different time zones are supported, User-wise authentication
	Data and time can be synchronized with an external NTP server, Live-cast for up to 16 clients,
Board size	42mm x 42mm (X 3 Board)

▶▶ **NOTE:** Technical specifications are subject to change without notice.

3. Card Reader Specification (Optional)

ITEM	MEDIA SUPPOTING SPECIFICATION				
	Category	Format		Support	Remarks
		Video	Audio		(Maximum bitrate, resolution)
Movie Specification	MPEG1	MPEG1	MP3, layer1,2	YES	Over 10,240kbps,720x576
	MPEG2	MPEG2	MPEG2	NO	-
	MPEG4	Divx3	MP3	YES	Over 10,240kbps,720x576
			AC3	YES	Over 10,240kbps,720x576
		Divx4	MP3	YES	Over 10,240kbps,720x576
			AC3	YES	Over 10,240kbps,720x576
		Divx5	MP3	YES	Over 10,240kbps,720x576
			AC3	YES	Over 10,240kbps,720x576
		Divx6	MP3	YES	Over 10,240kbps,720x576
			AC3	YES	Over 10,240kbps,720x576
		Xvid	MP3	YES	Over 10,240kbps,720x576
			AC3	YES	Over 10,240kbps,720x576
	MS-MPEG4	V2	MP3	NO	-
		V3	MP3	NO	
	WMV7	WMV7	WMV7	NO	
	WMV8	WMV8	WMV8	NO	
	WMV9	WMV9	WMV9	NO	
	H.264			NO	
	H.263			NO	
Extension	.mpg	MPEG1/2	MP3, layer1,2	YES	1192kbps, 720x576
	.3gp	H.263	AMR	NO	
		MPEG4	AMR	NO	
	.mp4	MPEG4	AAC	NO	
	.avi	MJEG			
		DivX	MP3	YES	Over 10,240kbps,720x576
		Xvid	MP3	YES	Over 10,240kbps,720x576
		Lossless avi		NO	
	.asf			NO	
Subtitle	*.smi, *.srt, *.sub (Micro DVD), *.ssa				

TROUBLESHOOTING GUIDE

TROUBLE	TROUBLESHOOTING TIP
No image on display screen	1. Check that power cord of the Monitor have been connected securely into wall outlet or grounded extension cable or strip. 2. Power switch should be in the ON position and LED is lit. 3. Check that the Brightness and/or the Contrast adjustments of the Display have not been turned down to minimum levels.
"NO SIGNAL" message on screen	1. The signal cable should be completely connected to the video card/computer. 2. The video card should be completely seated in its slot and the computer is switched ON.
Display image is not centered, too small or too large in PC mode	Push the down key in front side or Auto key in remote controller.
Vertical or Horizontal noise is present in the picture	Adjust Clock and Phase in the OSD.

WEEE Symbols

Correct Disposal of This Product (Waste Electrical & Electronic Equipment)
(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

MEMO